REMARKS

I. Status of the Claims

Claims 1-10 and 12-36 are currently pending in this application. Claim 11 is canceled herein without prejudice or disclaimer. Claims 1, 19, 32, and 36 are amended herein to recite that the heteroaromatic hydrazone is "able to generate a colored substance by reaction with an aldehyde" and to incorporate the subject matter of original claim 11. Support for this amendment may be found throughout the specification and claims as filed, for example, on page 6, paragraph [026] of the specification and in original claim 11. Accordingly, this amendment does no introduce new matter or require additional search by the Examiner.

II. Allowable Subject Matter

Applicants thank the Examiner for his indication that claims 7 and 8 would be allowable if rewritten in independent form. *See* Office Action dated July 18, 2005 ("First Office Action") at 5. However, Applicants choose not to amend the claims in this manner at the present time. Applicants believe that, in view of the arguments made herein, all pending claims 1-10 and 12-36 should now be ready for immediate allowance.

III. Rejections Under 35 U.S.C. § 102(e)

The Examiner rejected claims 1, 6, 9, and 13-35 under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent Application Publication No. 2002/0059682 to Hoeffkes et al. (*"Hoeffkes"*). The Examiner asserts that *Hoeffkes* "teaches a dyeing composition comprising a primary alcohol ethanol as an aldehyde precursor...at least

one enzyme such as alcohol oxidase...and at least one heteroaromatic hydrazone." *See* First Office Action at 3. Applicants respectfully assert that this rejection is obviated in view of the proposed amendments to the claims.

Under 35 U.S.C. § 102, a reference must teach, either expressly or inherently, each and every limitation of the pending claims in order to anticipate. *See* MPEP § 2131. Further, a rejection under § 102 is proper only when the claimed subject matter is identically described or disclosed in the prior art. *In re Arkley*, 455 F.2d 586, 587 (CCPA 1972) (emphasis added). These criteria have not and cannot be met here with respect to the presently pending claims.

Hoeffkes describes a composition for dyeing keratin fibers comprising a dye precursor and a phenol-oxidizing enzyme which can be obtained from the *Stachybotrys* species (*see* page 1, paragraph [0010]). As the Examiner concedes, *Hoeffkes* does not teach the heteroaromatic hydrazones recited in original claim 11. *See* First Office Action at 4. Independent claims 1, 19, and 32 now recite the subject matter of original claim 11. As such, *Hoeffkes* does not and cannot teach each and every element of the claimed invention and Applicants respectfully request that the Examiner withdraw this rejection and allow the claims.

IV. Rejections Under 35 U.S.C. § 103(a)

The Examiner has also rejected, under 35 U.S.C. § 103(a), claims 2-5, 10, and 26 over *Hoeffkes* and claims 11-12 over *Hoeffkes* in view of U.S. Patent No. 3,634,013 to Benshein et al. ("Benshein"). Applicants respectfully submit that these rejections are obviated in view of the proposed amendments to the claims.

To prove a *prima facie* case of obviousness, the Office must show that the cited references would have provided to one of ordinary skill in the art some suggestion or motivation to combine or modify their teachings in an effort to achieve all of the limitations of the claimed invention, with a reasonable expectation of success (*see* MPEP § 2143). These criteria have not and cannot be met here with respect to the present claims.

Rejection of Claims 2-5, 10, and 26 under 35 U.S.C. § 103(a) in view of Hoeffkes

The Examiner asserts that it would have been obvious to a skilled artisan "to formulate [the presently claimed] dyeing composition by optimizing the dyeing ingredients [in *Hoeffkes*] such as aldehyde precursors in order to get the maximum effect of these ingredients in the dyeing composition..." *See* First Office Action at 3-4.

As discussed above, *Hoeffkes* does not teach or suggest the heteroaromatic hydrazones recited in original claim 11 (and as now recited by independent claims 1 and 19). As such, *Hoeffkes* alone cannot serve as a proper basis for a *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection and allow the claims.

Rejection of Claims 11 and 12 under 35 U.S.C. § 103(a) in view of Hoeffkes and Benshein

The Examiner concedes that *Hoeffkes* does not teach hydrazones of the formula recited in claim 11, and relies on *Benshein* to disclose this element of the claims. *See* First Office Action at 4. The Examiner relies on *Hoeffkes'* general disclosure of heterocyclic hydrazones on page 2, paragraph [0018] as providing the requisite

motivation for one of ordinary skill in the art to combine the teachings of *Hoeffkes* and *Benshein*. *See id.* at 5. For at least the following reasons, Applicants respectfully disagree with this position.

As previously discussed on the record, *Hoeffkes* is generally directed to a method for dyeing keratin fibers comprising applying to the fibers a composition comprising at least one dye precursor and at least on phenol-oxidizing enzyme. *See* abstract. However, as previously pointed out, a phenol-oxidizing enzyme is incapable of converting ethanol into an aldehyde, and thus cannot serve as an enzyme capable of generating an aldehyde from the at least one aldehyde precursor, as claimed. Indeed, the mechanism of *Hoeffkes* is completely different than that of the claimed invention. *Hoeffkes* utilizes phenol oxidizing enzymes to produce oxygen. The oxygen produced subsequently oxidizes the dye precursor by oxidative condensation, which results in a dye agent. In contrast, according to the present disclosure, an enzyme reacts with an aldehyde precursor to produce an aldehyde, which subsequently reacts with a heteroaromatic hydrazone to form a colored product.

As presently claimed, the at least one heteroaromatic hydrazone is "capable of generating a colored substance from an aldehyde." *See, e.g.*, claim 1 as amended. *Hoeffkes* does not mention or suggest the desirability or utility of a hydrazone capable of generating a colored substance from an aldehyde. Moreover, *Hoeffkes* nowhere teaches generating aldehyde from aldehyde precursors and subsequently reacting the aldehyde with a heteroaromatic hydrazone. Indeed, *Hoeffkes* teaches a completely different dyeing mechanism, as discussed above.

The suggestion or motivation to modify the teachings of *Hoeffkes* "must be found in the prior art reference, not in the Applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). *Hoeffkes* is directed to a completely different dye composition, using an entirely different mechanism. As such, Applicants assert that, without looking at the present specification, one of ordinary skill in the art would have no motivation to modify the teachings of *Hoeffkes* by incorporating the hydrazones of *Benshein* to achieve the presently claimed invention.

Moreover, even assuming arguendo that a skilled artisan was motivated to combine the teachings of *Hoeffkes* and *Benshein*, Applicants assert that such a combination would not lead the skilled artisan to the presently claimed invention. *Benshein* discloses hair dye compositions comprising a coupling agent and a heterocyclic compound containing a hydroazono group (*see* col. 1, lines 24-28). *Benshein* does not teach or suggest a composition comprising aldehyde precursors and enzymes able to generate aldehydes from aldehyde precursors.

As discussed previously on record, *Hoeffkes* does not teach or suggest aldehyde precursors as dye precursors. The Examiner, pointing to paragraph [0211] of *Hoeffkes*, alleges that ethanol serves as an aldehyde precursor. *See* Final Office Action at 3. However, *Hoeffkes* nowhere mentions or suggests the concept of aldehyde precursors. Indeed, ethanol is described as an optional additive or auxiliary component, which is listed among myriad different auxiliary components. *See* page 7, paragraph [0131] – page 11, paragraph [0234]. Furthermore, ethanol is described as a solvent or solubility promoter (*see* page 11, paragraph [0211]), not as a dye precursor. Finally, while *Hoeffkes* does disclose alcohol oxidases (see page 7, paragraph [0129], relied upon by

the Examiner), these enzymes are mentioned in passing as optional components, listed among various other auxiliary components.

The mere mention of ethanol, alcohol oxidases, and heterocyclic hydrazones in general by *Hoeffkes* does not render the instant invention obvious. As recognized by the Federal Circuit "virtually all inventions are combinations of old elements . . . . If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue." *See*, for example, *In re Rouffet*, 149 F.3d 1350, 1356, 47 U.S.P.Q.2d 1453, 1459 (Fed. Cir. 1998). Moreover, a prior art reference containing a "needle-in-the-haystack" type disclosure does not render a patent obvious. *See*, for example, *In re Luvisi*, 342 F.2d 102, 105, 144 U.S.P.Q. 646, 649 (C.C.P.A. 1965) ("Luvisi"). In *Luvisi*, the court reversed the Board's finding of obviousness because there was nothing in the references relied on by the Examiner that would suggest the selection of one compound from a list of around fifty compounds. *Id*. Similarly, here, there is nothing in *Hoeffkes* to suggest picking ethanol and alcohol oxidase from a long laundry list of optional additives.

Thus, Applicants assert that the Examiner must be using impermissible hindsight in support of his obviousness position. Using an applicant's disclosure as a blueprint to reconstruct the claimed invention from isolated pieces of the prior art references is improper. *See Grain Processing Corp. v. American Maize-Prods. Co.*, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1988). The disclosure of ethanol as an optional additive on page 11 of *Hoeffkes*, the mention of alcohol oxidases as an optional additive in a totally different part of the reference on page 7, and the passing mention of heterocyclic hydrazones in general on page 2, hardly qualifies as a disclosure sufficient

to lead a skilled artisan to modify the teachings of *Hoeffkes* with a reasonable expectation of success of achieving the present invention, as required for a proper obviousness rejection. *See* MPEP § 2143. Just because some elements of the presently claimed invention are disclosed separately within the four corners of the *Hoeffkes* reference does not give the Examiner free reign to combine them, with no guidance from the reference, and allege that this is an obviating disclosure.

As the cited references, either alone or in combination, cannot and do not teach or suggest each and every element of the pending claims as amended, this rejection is improper. Thus, Applicants respectfully request that the Examiner withdraw the rejection and allow the claims.

V. Conclusion

Applicants respectfully requests that these remarks and amendments be considered by the Examiner, placing claims 1-10 and 12-36 in condition for allowance. Applicants submit that the proposed amendments do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicants submit that entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicants submit that the claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request entry of this Amendment, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

/Louis Troilo/

Dated: August 4, 2006 By:_____

Louis M. Troilo
Reg. No. 45,284